

PWR BOX ESS C&I LIQUID COOLED BESS 100 kW / 215 kWh



Feature

Safety

- Smart liquid-cooled temperature control system, the temperature difference between batteries inside PACK is $\leq 2.5^{\circ}\text{C}$, ensuring the consistency of battery temperature control, increasing life by 15%;
- Verified by a number of destructive tests such as short circuits, burning, fire resistance, etc., making the product safe and reliable;
- Electrical multi-dimensional fusion perception and multi-level fuse protection;
- Emergency avoidance design, BMS, EMS thermal backup, reducing failure rate by 5%;
- Early thermal runaway prewarning design, integrating detection, fire suppression, combustible gas detection, smoke prevention and explosion relief functions, which interacts with BMS and EMS to realize PACK-level targeted fire extinguishing;
- Full "mirror" surface design with core components integrated within the cabinet to reduce the risk of hidden failure;
- IP67 PACK-level protection and IP55 system-level protection;

Simple

- All-in-one design and modular installation, single cabinet covering an area of just 1.69m^2 ;
- Applicable to multiple industrial scenarios and easy to connect to the grid;
- Anti-installation short-circuit error, convenient and safe for maintenance;
- Easily plug and play with aviation plug and simple capacity expansion covering power range from 100KW to 1.2MW;
- Factory prefabrication and integrated transportation to reduce the transportation, installation and commissioning fees by 15%;

Smart

- Real time leakage monitoring and smart replenishment to reduce on-site operation and maintenance work;
- Remote cloud operation and maintenance, supporting remote and local monitoring;
- Smart balancing strategy and system AI prewarning to ensure the consistency of battery lifecycle;
- Support black start function with reliable power supply in off-grid/micro-grid mode;
- Support multiple operation modes (VPP, grid-connected, off-grid) to improve revenue;

Technical parameters

Type	Name	Parameters	Remarks
DC parameters	Cell type	LFP-3.2V-280Ah	
	Rated capacity[kWh]	215	
	Nominal voltage[V]	768	Voltage range 672 ~ 864
	Charge-discharge rate	≤0.5CP	
AC parameters (grid connected)	Rated power[kW]	100	
	Grid voltage[V]	400 (-20%~ 10%)	
	Rated current[A]	178	
	Rated grid frequency [Hz]	50/60	
	Grid frequency range [Hz]	45~55/55~65	
	THDi	< 3% (rated power)	
	Power factor	>0.99 (rated power)	
	Power factor adjustable range	- 1 (leading) ~ 1 (lagging)	
AC parameters (off grid)	AC off-grid voltage[V]	400 (-5%~5%)	
	AC off-grid frequency[Hz]	50/60	
	Off-grid output voltage distortion rate	< 1% (Linear load)	
System parameters	Cooling mode	PACKLiquid-cooled、PCS air-cooled	
	Fire protection system	Perfluoro(2- methyl-3-pentanone)+Water fire protection	
	Anti-corrosive level	C3	(C4\C5 optional)
	Ingress protection	IP55	
	Operating temperature range[°C]	0~45°C	
	Storage temperature[°C]	-20~50°C	SOC@30%~50%, < 6months
	Operating humidity range	0~95%RH	No condensation
	Installation mode	Outdoor	
	System communication interface	Ethernet/RS485	
	External system communication protocol	Modbus TCP/Modbus RTU	
	Altitude[m]	<2000	>2000 derating
	Dimension W* D* H[mm]	W1300×D1310×H2265 mm	
	Weight[kg]	≈2550 Kg	
	Certificate	GB/T 36276、IEC 62169、UL1973	

- Product continues to iterate, specifications may be updated without prior notice.